

**S/N 10/822,400**

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	German R. Gutierrez	Examiner: Tsc, Young Toi
Serial No.:	10/822,400	Group Art Unit: 2611
Filed:	April 12, 2004	Docket No.: BU1647C2/0033-019003
Title:	GM Cell Based Control Loops	

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**AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116**

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Applicant has reviewed the Office Action mailed on June 3, 2008. Applicant respectfully requests reconsideration of the Application in view of the following.

### AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A method for generating an output signal locked to an input signal, the method comprising:

receiving at a detector the input signal and a reference signal;

generating a detector output signal indicative of a difference between the input signal and the reference signal;

receiving the detector output signal at a first filter coupled to the detector and providing a filtered detector output signal;

receiving the filtered detector output signal at a transconductance (gm) amplifier coupled to the first filter and providing a current output signal;

receiving the current output signal at a multiplexer configured to provide, based on a mode control signal, only one of the current output signal received from the gm amplifier or a signal received from another device;

receiving the current output signal at a second filter coupled to the ~~gm amplifier~~ multiplexer and providing a control signal; and

receiving at an oscillator coupled to the second filter the control signal and providing an oscillator signal having a property that is adjusted by the control signal.

2. (Original) The method of claim 1, wherein the first filter is a single-pole RC filter.

3. (Previously presented) The method of claim 1 further comprising:  
receiving at a frequency divider coupled to the oscillator the oscillator signal and dividing the oscillator signal for generating the reference signal.

4. (Original) The method of claim 1, wherein the input signal is a serial data stream.

5. (Original) The method of claim 4, wherein the serial data stream has a data rate of at least 2.488 GHz.

6. (Original) The method of claim 1, wherein the gm amplifier includes a differential amplifier receiving the filtered signal and a current load circuit coupled to the differential amplifier providing the current output signal.

7. (Original) The method of claim 1, wherein the detector output signal has a peak-to-peak signal swing of less than one volt.

8. (Original) The method of claim 1, wherein the reference signal is a reference clock signal.

### **REMARKS**

Claims 1-8 are pending, with claim 1 being independent. Claim 1 has been amended to recite, “receiving the current output signal at a multiplexer configured to provide, based on a mode control signal, only one of the current output signal received from the gm amplifier or a signal received from another device,” and that the second filter receives the current output signal from the multiplexer. Support for this amendment may be found, for example, in FIG. 10 and on page 18, lines 3-5 and 23-35 of the specification.

The Office Action dated June 3, 2008, rejected claims 1-5 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Volk, U.S. Patent No. 5,384,502, in view of Everitt et al., U.S. Patent No. 6,188,739. Applicant respectfully submits that these references do not disclose, “receiving the current output signal at a multiplexer configured to provide, based on a mode control signal, only one of the current output signal received from the gm amplifier or a signal received from another device,” or the second filter receiving the current output signal from the multiplexer, as recited in amended claim 1. Accordingly, Applicant respectfully requests that the rejection of claim 1 be withdrawn. Applicant further requests that the rejections of claims 2-5 and 8 be withdrawn at least due to their dependence on claim 1.

The Office Action rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Volk in view of Everitt, and further in view of Voorman, U.S. Patent No. 4,780,690. Applicant respectfully submits that Voorman does not compensate for the deficiencies of Volk and Everitt in failing to disclose or render obvious all of the elements of claim 1. Accordingly, Applicant respectfully requests that the rejection of claim 6 be withdrawn due to its dependence on claim 1.

The Office Action rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Volk in view of Everitt, and further in view of Hotine, U.S. Patent No. 4,656,647. Applicant respectfully submits that Hotine does not compensate for the deficiencies of Volk and Everitt in failing to disclose or render obvious all of the elements of claim 1. Accordingly, Applicant respectfully requests that the rejection of claim 7 be withdrawn due to its dependence on allowable claim 1.

Conclusion

Applicant believes that all pending claims are in condition for allowance and respectfully requests notification to that effect. The Examiner may telephone Applicant's attorney (208-286-1013) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-3521.

Respectfully submitted,

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